

are given, and observations are made on the commercial possibilities. The cobalt and nickel minerals found in the Cobalt mining district of northern Ontario have for many years been the most important source of arsenic in Canada. Arsenopyrite from other areas has been the source of smaller quantities.

Coal.—W. E. Cockfield¹ reported upon coal horizons in the Atlin-Telegraph Creek area, G. Hanson¹ on the Zymoetz River area, and B. R. MacKay¹ on Hat creek, Kamloops district, British Columbia.

Coal has been reported from Sloko lake and Yeth creek. It is not definitely known whether the coal-bearing formation persists throughout the Atlin-Telegraph Creek area, but if so it is well worthy of prospecting.

In the Zymoetz River area, coal occurs in the Lower Cretaceous Skeena horizon and possibly in the Middle Jurassic Hazelton horizon. Six seams of coal are known to occur, three of which are over three feet in thickness. A thorough test of the coal has not been made; the volatile matter is low and moisture and ash content high.

Lignite seams at Hat creek were found to have an estimated thickness of 110 feet of clean coal. The lignite slacks upon exposure to air, leaving little lump; the moisture and ash content are high.

The so-called coal seams of the Moose River basin, Ontario, have been described by F. H. McLearn¹. The material obtained from the banks of Mattagami river is a lignite and the seams exposed on Missinaibi and Opazatika rivers are interglacial peat beds. So far as they are known at present they are not thick enough, regular enough or extensive enough to be of economic importance.

The Minto coal fields of southern New Brunswick are described by W. S. Dyer¹. The coal, which is of Carboniferous age and bituminous in character, occurs in seams 18 to 24 inches thick which lie at a very shallow depth and are mined in part by surface stripping.

Copper.—E. S. Moore³, in a report on the geology of the east shore of lake Superior, includes a description of the interbedded conglomerates and amygdaloidal basic lava flows in which a certain amount of native copper has been found. The formations resemble those of northern Michigan, which have been the source of enormous quantities of copper. Attempts were made a great many years ago to work the Canadian deposits.

The important auriferous copper and zinc sulphides of western Quebec that are now being mined or that are in course of development are described in considerable detail by H. C. Cooke¹. In writing on his investigations in 1926 the author describes intrusions of granodiorite that are probably sill-like in form, and shows that the relation of the sulphide bodies to the granodiorite intrusions suggest that the ores are basic segregations that separated in some way, perhaps by sinking during the early stages of cooling of the magma. He points out, however, that much yet remains to be done in order to determine definitely the genesis of the ore.

The sulphide deposits of Desmeulizes township, Quebec, are briefly described by W. F. James and J. B. Mawdsley¹, and copper deposits at Goshen and at Annidale Station, N.B., are described by M. E. Wilson¹.

Gold.—A number of reports have been published on areas in which gold discoveries have been made and areas which are underlain by geological formations of early Precambrian age in which mineral deposits of value might be expected to be found. The geological features are described in detail and notes are given.